UV sterilizer

Helix Max

Operation manual

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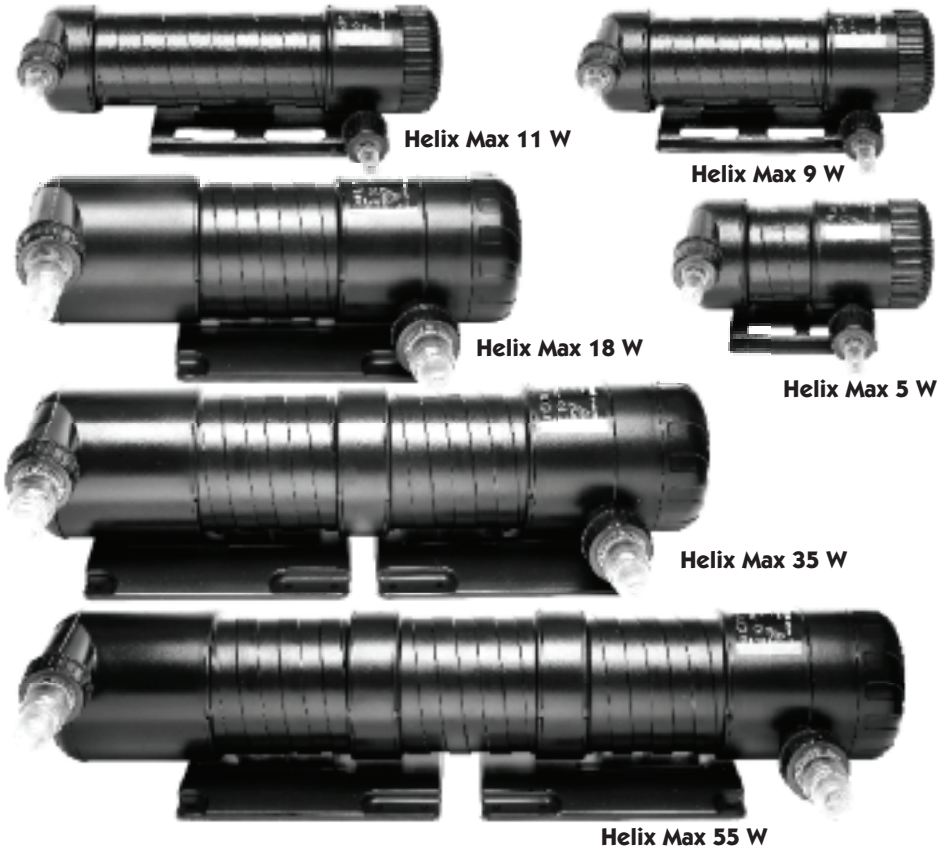

UV sterilizer for saltwater and freshwater aquariums and garden ponds

This UV sterilizer is a quality unit. If used correctly, **Helix Max** kills microalgae and creates cristal clear water in aquariums and garden ponds. It inactivates bacteria and other parasites and the risk for infection of the fish decreases.

It has been specifically developed for aquarium use, has been designed and manufactured to the highest standards and has been extensively tested.

1. Operating principle

The UV sterilizer **Helix Max** clears the water with the help of ultraviolet radiation. This radiation is emitted by a special lamp. The UV-C radiation kills all forms of life that are directly exposed to the radiation - microalgae, bacteria, protozoa and other parasites. The result is cristal clear water and healthy fish.

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2. Special features

Spiral water flow: The unique spiral water flow and the big volume of the **Helix Max** units ensure an optimum water clarification. The water is directed in a spiral way around the quartz tube with a long contact time. Due to this, the UV-radiation is used with maximum efficiency.

Rotable connections: The inlet and outlet connections of the **Helix Max** can be rotated for 360°. This saves space and fascilitates the installation.

3. Sizes/technical data

Helix Max sterilizers are produced in 6 sizes:

5 watts, 9 watts, 11 watts with 2 m cable for fresh and saltwater aquariums.

18 watts, 36 watts and 55 watts, with 10 m rubber cable and electronic ballast for garden ponds and for fresh and saltwater aquariums. With electronic ballasts for longer life time of the bulbs and also a higher UV output.

For the different applications, we recommend different aquarium/pond sizes and flow rates. In garden ponds, the recommended flow rates will not result in a sterilization, but the water is clarified by killing the microalgae.

Helix Max	Saltwater aquarium	Recommended max. flow	Freshwater aquarium	Recommended max. flow	Pond	Maximum flow
5 watts	25 — 125 l	100 l/h	50 — 250 l	200 l/h	—	—
9 watts	125 — 250 l	200 l/h	250 — 500 l	500 l/h	—	—
11 watts	150 — 350 l	300 l/h	350 — 750 l	700 l/h	—	—
18 watts	500 — 1,000 l	1,000 l/h	500 — 1,000 l	1,000 l/h	18,000 l	6,000 l/h
36 watts	500 — 1,000 l	1,000 l/h	1,000 — 2,000 l	2,000 l/h	36,000 l	12,000 l/h
55 watts	up to 1,500 l	1,500 l/h	up to 3,000 l	3,000 l/h	55,000 l	18,000 l/h

Helix Max	Cable length	Lamp type	Max. pressure	Protection	Power connection
5 watts	2 m	PL – S – 5 watts	0,3 bar	IPX3	230 V ~/50 Hz
9 watts	2 m	PL – S – 9 watts	0,3 bar	IPX3	230 V ~/50 Hz
11 watts	2 m	PL – S – 11 watts	0,3 bar	IPX3	230 V ~/50 Hz
18 watts	10 m	PL – L – 18 watts	0,3 bar	IPX3	230 V ~/50 Hz
36 watts	10 m	PL – L – 36 watts	0,3 bar	IPX3	230 V ~/50 Hz
55 watts	10 m	PL – L – 55 watts	0,3 bar	IPX3	230 V ~/50 Hz

4. Safety advice

The radiation of the UV-C lamps is dangerous. Direct contact with eyes or skin can result in irreversible damages. Therefore, the unit must always be switched off before it is opened.
The units **Helix Max 5 watts** and **Helix Max 9 watts** and **11 watts** are suitable for indoor use only. The units may only be switched on when the water flow is on. If used on a garden pond, the units have to be switched off and removed during winter to prevent damages from frost. The units may not be submerged or operated under water.

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5. Connection

The **Helix Max** are supplied with transparent connection pieces. This allows to control the function of the bulbs - blue light when the UV bulbs are on.

Depending on the installed pump and water flow, the connection pieces should be cut to the best size (metal saw).
The connections of the **Helix Max** can be rotated for 360°. This allows an easy adaptation to the mounting conditions. In any case, the units have to be set up in a way that the outlet connection is at the highest point to avoid air to be trapped in the unit.

1. Housing
2. Ballast
3. UVC Lamp
4. Connection pieces
5. Holding plate
6. Union nut

6. Maintenance and cleaning

1. The UV-C lamps have a life span of approx. 8,000 hrs. After 5,000 hrs, the UV-C output of the lamps decreases to 85%. The lamps have to be changed regularly. We recommend to clean the quartz tube whenever the lamps are changed.
2. Switch the power off, stop the water flow and drain the water from the unit (dismount the water connections).
3. Open the large screw cap. Careful: The lamp is fixed with the socket in the screw cap. If the screw cap is open, you can carefully remove the lamp.

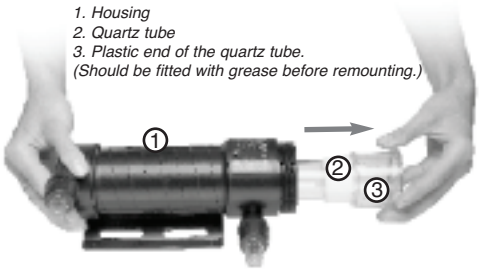
1. Housing
2. Plastic cover of the UV-C lamp
3. UV-C lamp
4. Lamp holder and end cap

4. To clean the quartz tube, it can be removed from the housing. Normally, it is very tight and has to be lifted up a little bit with a screw driver or a coin (careful, do not use too much force). Take it out by hand. The quartz tube can be cleaned with water and a soft cloth. If there are calcium deposits on the tube, it can be cleaned with vinegar or commercial decalcifiers. Afterwards, flush it with water. The plastic end part of the quartz tube can be fitted with grease for easy remounting.

5. The remounting is done in reverse order. The quartz tube is pushed into the housing, the lamp is fastened into the socket and both are carefully mounted in the housing. The screw cap is fixed tight. Finally, the connection pieces are remounted and the hoses are secured with the clamps.

6. The electronic ballast is maintenance-free. It the lamp stops working or does not start anymore, although a new lamp is mounted, the ballast has to be changed. This has to be done by a specialist using original AQUA MEDIC parts, only.

1. Housing
2. Quartz tube
3. Plastic end of the quartz tube.
(Should be fitted with grease before remounting.)



7. Warranty

Should any defect in material or workmanship be found within 12 months of the date of purchase AQUA MEDIC GmbH undertakes to repair or, at our option, replace the defective part free of charge - always provided the product has been installed correctly, is used for the purpose that was intended by us, is used in accordance with the operating instructions and is returned to us carriage paid. The warranty term is not applicable on the all consumable products.
Proof of Purchase is required by presentation of an original invoice or receipt indicating the dealer's name, the model number and date of purchase, or a **Guarantee Card** if appropriate. This warranty may not apply if any model or production number has been altered, deleted or removed, unauthorized persons or organisations have executed repairs, modifications or alterations, or damage is caused by accident, misuse or neglect.
We regret we are unable to accept any liability for any consequential loss.
Please note that the product is not defective under the terms of this warranty where the product, or any of its component parts, was not originally designed and / or manufactured for the market in which it is used.
These statements do not affect your statutory rights as a customer.

If your AQUA MEDIC GmbH product does not appear to be working correctly or appears to be defective please contact your dealer in the first instance.
Before calling your dealer please ensure you have read and understood the operating instructions. If you have any questions your dealer cannot answer please contact us.

Our policy is one of continual technical improvement and we reserve the right to modify and adjust the specification of our products without prior notification.

AB Aqua Medic GmbH - Gewerbepark 24 - 49143 Bissendorf/Germany

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